

Amendments to the Claims:

1. (Currently amended) A method of controlling wireless communications between a first frequency hopping wireless communication device and a second frequency hopping wireless communication device, comprising:

the first device sending to the second device a first transmission on a first frequency specified by a frequency hopping pattern associated with transmissions by the second device, said first frequency specified by the frequency hopping pattern for one of a plurality of nearest future transmissions from the second device to the first device;

the second device receiving the first transmission and providing communication quality measurements respectively associated with receipt of the first transmission;

the second device sending a second transmission to a third device after said first transmission and before said one of the plurality of nearest future transmissions; and

based on the communication quality measurements, the second device sending said one of the plurality of nearest future transmissions ~~transmission~~ to the first device on the first frequency.

2. (Currently amended) The method of Claim 1, wherein said receiving step includes the second device receiving the first transmission via a plurality of antennas, said providing step includes ~~including~~ providing communication quality measurements respectively associated with receipt of the first transmission by the respective antennas, and said sending step including using the antennas to send said one of the plurality of nearest future transmissions ~~transmission~~ to the first device on the first frequency.

3. (Currently amended) The method of Claim 2, including ~~wherein~~ said providing step further includes the second device calculating weighting coefficients for the respective antennas thereof based on the communication quality measurements.

4. (Currently amended) The method of Claim 3, wherein said using step includes the second device using the weighting coefficients to send said one of the plurality of nearest future transmissions ~~transmission~~.

5. (Currently amended) The method of Claim 2, including the second device selecting one of the antennas based on the communication quality measurements, and said sending step includes ~~including~~ the second device using the selected antenna to send said one of the plurality of nearest future transmissions ~~transmission~~ to the first device on the first frequency.
6. (Canceled)
7. (Currently amended) The method of Claim 6 1, including the third device sending a third transmission to the second device after said first transmission and before said one of the plurality of nearest future transmissions ~~transmission~~.
8. (Currently amended) The method of Claim 7, including the second device sending a fourth transmission to a fourth device after said first transmission and before said one of the plurality of nearest future transmissions ~~transmission~~.
9. (Currently amended) The method of Claim 8, including the fourth device sending a fifth transmission to the second device after said first transmission and before said one of the plurality of nearest future transmissions ~~transmission~~.
10. (Original) The method of Claim 9, wherein the first, third and fourth devices are Bluetooth slave devices and the second device is a Bluetooth master device.
11. (Original) The method of Claim 7, wherein said step of the third device sending a transmission to the second device includes the third device sending the transmission to the second device on a second frequency specified by the frequency hopping pattern for one of a plurality of nearest future transmissions from the second device to the third device.
12. (Currently amended) The method of Claim 1, wherein said one of the plurality of nearest future transmissions ~~transmission~~ is immediately timewise adjacent to said first transmission.

13. (Original) The method of Claim 1, wherein the first device is a Bluetooth slave device and the second device is a Bluetooth master device.

14. (Currently amended) The method of Claim 1, wherein said sending step includes the second device changing one of a coding rate associated with said one transmission, a packet length associated with said one transmission and a transmission power level associated with said one of the plurality of nearest future transmissions ~~transmission~~, based on the communication quality measurements.

15. (Currently amended) A frequency hopping wireless communication apparatus, comprising:

at least one antenna for transmitting and receiving communications via a wireless communication link;

a wireless communication interface coupled to said at least one antenna for receiving from a further frequency hopping wireless communication apparatus via said at least one antenna a first transmission on a first frequency specified by a frequency hopping pattern associated with transmissions by said wireless communication interface, said first frequency specified by the frequency hopping pattern for one of a plurality of nearest future transmissions to the further frequency hopping wireless communication apparatus;

wherein said wireless communication interface is operable after said first transmission and before said one of the plurality of nearest future transmissions for sending and receiving respective transmissions to and from a frequency hopping wireless communication apparatus other than the further frequency hopping wireless communication apparatus; and

said wireless communication interface including a measurement portion for providing communication quality measurements respectively associated with receipt of said first transmission by said at least one antenna, said wireless communication interface operable in response to receipt of said first transmission and based on said communication quality measurements for sending said one of the plurality of nearest future transmissions ~~transmission~~ to

the further frequency hopping wireless communication apparatus via said at least one antenna on said first frequency.

16. (Currently amended) The apparatus of Claim 15, including an indicator coupled to said wireless communication interface for indicating to said wireless communication interface that, after sending said one of the plurality of nearest future transmissions ~~transmission~~, a second frequency is to be used to receive a nearest future transmission from the further frequency hopping wireless communication apparatus, said second frequency specified by the frequency hopping pattern for a second transmission to the further frequency hopping wireless communication apparatus that is one of a plurality of transmissions to the further frequency hopping wireless communication apparatus that most closely follow said one of the plurality of nearest future transmissions ~~transmission~~.

17. (Currently amended) The apparatus of Claim 15, wherein said one of the plurality of nearest future transmissions ~~transmission~~ is immediately timewise adjacent said first transmission.

18. (Canceled)

19. (Original) The apparatus of Claim 15, provided as a Bluetooth master device.

20. (Currently amended) A frequency hopping wireless communication apparatus, comprising:

an antenna for transmitting and receiving communications via a wireless communication link;

a wireless communication interface coupled to said antenna for sending via said antenna to a further frequency hopping wireless communication apparatus a first transmission on a first frequency specified by a frequency hopping pattern associated with transmissions by the further frequency hopping wireless communication apparatus, said first frequency specified by the

frequency hopping pattern for one of a plurality of nearest future transmissions from the further frequency hopping wireless communication apparatus to said wireless communication interface;

wherein said wireless communication interface is operable after said first transmission
and before said one of the plurality of nearest future transmissions for sending and receiving
respective transmissions to and from a frequency hopping wireless communication apparatus
other than the further frequency hopping wireless communication apparatus; and

said wireless communication interface operable for receiving said one of the plurality of
nearest future transmissions transmission from the further frequency hopping wireless
communication apparatus via said antenna on said first frequency, said nearest future
transmission sent by the further frequency hopping wireless communication apparatus based on a
plurality of communication quality measurements made by the further frequency hopping
wireless communication apparatus and respectively associated with receipt of said first
transmission by the further frequency hopping wireless communication apparatus.

21. (Currently amended) The apparatus of Claim 20, including an indicator coupled to said wireless communication interface for indicating to said wireless communication interface that, after receipt of said one of the plurality of nearest future transmissions transmission, a second frequency is to be used to send a nearest future transmission from said wireless communication interface to the further frequency hopping wireless communication apparatus, said second frequency specified by the frequency hopping pattern for a second transmission from the further frequency hopping wireless communication apparatus to said wireless communication interface that is one of a plurality of transmissions from the further frequency hopping wireless communication apparatus to said wireless communication interface that most closely follow said one of the plurality of nearest future transmissions transmission.

22. (Currently amended) The apparatus of Claim 20, wherein said nearest future transmission is immediately timewise adjacent to said first transmission.

23. (Original) The apparatus of Claim 20, provided as a Bluetooth slave device.

24. (Currently amended) The method of Claim 1, wherein said one of the plurality of nearest future transmissions ~~transmission~~ is the nearest of said plurality of nearest future transmissions.
25. (Currently amended) The apparatus of Claim 15, wherein said one of the plurality of nearest future transmissions ~~transmission~~ is the nearest of said plurality of nearest future transmissions.
26. (Currently amended) The apparatus of Claim 20, wherein said one of the plurality of nearest future transmissions ~~transmission~~ is the nearest of said plurality of nearest future transmissions.
27. (New) A method of controlling wireless communications, comprising:
 - determining a first frequency hopping pattern;
 - determining a second frequency hopping pattern different from the first frequency hopping pattern;
 - sending a first transmission on a first frequency of the first frequency hopping pattern from a first device to a second device, wherein the first frequency is specified by the second frequency hopping pattern for one of a plurality of nearest future transmissions from the second device to the first device;
 - receiving the first transmission and providing communication quality measurements at the second device; and
 - sending said one of the plurality of nearest future transmissions from the second device to the first device on the first frequency of the second frequency hopping pattern in response to the communication quality measurements.
28. (New) A method as in claim 27, comprising sending a second transmission from the second device to a third device according to the second frequency hopping pattern after said first transmission and before said one of the plurality of nearest future transmissions.
29. (New) A method as in claim 28, comprising:

determining a third frequency hopping pattern different from the first and second frequency hopping patterns; and

sending a third transmission from the third device to the second device according to the third frequency hopping pattern after said first transmission and before said one of the plurality of nearest future transmissions.

30. (New) A method of controlling wireless communications, comprising:

determining a first frequency hopping pattern;

sending a first transmission on a first frequency of the first frequency hopping pattern from a first device to a second device;

receiving the first transmission and providing communication quality measurements at the second device;

selecting a channel coding rate in response to the communication quality measurements;

and

sending said one of the plurality of nearest future transmissions from the second device to the first device on the first frequency in response to the step of selecting.

31. (New) A method as in claim 30, comprising determining a second frequency hopping pattern different from the first frequency hopping pattern, wherein the step of sending comprises sending according to the second frequency hopping pattern.

32. (New) A method as in claim 31, comprising sending a second transmission from the second device to a third device according to the second frequency hopping pattern after said first transmission and before said one of the plurality of nearest future transmissions.

33. (New) A method as in claim 32, comprising:

determining a third frequency hopping pattern different from the first and second frequency hopping patterns; and

sending a third transmission from the third device to the second device according to the third frequency hopping pattern after said first transmission and before said one of the plurality of nearest future transmissions.

34. (New) A method of controlling wireless communications, comprising:
 determining a first frequency hopping pattern;
 sending a first transmission on a first frequency of the first frequency hopping pattern from a first device to a second device;
 receiving the first transmission and providing communication quality measurements at the second device;
 selecting a packet length in response to the communication quality measurements; and
 sending said one of the plurality of nearest future transmissions from the second device to the first device on the first frequency in response to the step of selecting.

35. (New) A method as in claim 34, comprising determining a second frequency hopping pattern different from the first frequency hopping pattern, wherein the step of sending comprises sending according to the second frequency hopping pattern.

36. (New) A method as in claim 35, comprising sending a second transmission from the second device to a third device according to the second frequency hopping pattern after said first transmission and before said one of the plurality of nearest future transmissions.

37. (New) A method as in claim 36, comprising:
 determining a third frequency hopping pattern different from the first and second frequency hopping patterns; and
 sending a third transmission from the third device to the second device according to the third frequency hopping pattern after said first transmission and before said one of the plurality of nearest future transmissions.

38. (New) A method of controlling wireless communications, comprising:

determining a first frequency hopping pattern;
 sending a first transmission on a first frequency of the first frequency hopping pattern
 from a first device to a second device;
 receiving the first transmission and providing communication quality measurements at
 the second device;
 selecting a plurality of weighting coefficients in response to the communication quality
 measurements; and
 transmitting over a plurality of antennas said one of the plurality of nearest future
 transmissions from the second device to the first device on the first frequency according to the
 plurality of weighting coefficients corresponding to the plurality of antennas, respectively.

39. (New) A method as in claim 38, comprising determining a second frequency hopping
 pattern different from the first frequency hopping pattern, wherein the step of sending comprises
 sending according to the second frequency hopping pattern.

40. (New) A method as in claim 39, comprising sending a second transmission from the
 second device to a third device according to the second frequency hopping pattern after said first
 transmission and before said one of the plurality of nearest future transmissions.

41. (New) A method as in claim 40, comprising:
 determining a third frequency hopping pattern different from the first and second
 frequency hopping patterns; and
 sending a third transmission from the third device to the second device according to the
 third frequency hopping pattern after said first transmission and before said one of the plurality of
 nearest future transmissions.